Examination

- 4 questions from 6 (each question is worth 25% of test) and is marked out of 10.
- 2 will be compulsory (ie. YOU HAVE TO DO THEM)
- 2 hours to complete test (allow approx 30mins per question (attempt to write 4 solid answers/ not 3 good answers and one lousy one)

Essay style/ can use one diagram per answer.

Write as LEGIBLY as is conceivably possible.

Write your answers “essay style” (NOT POINT FORM).

Exam is cumulative.

Topic outline

Molecular Analysis of Development

-Descriptive embryology

-Genetics and molecular biology

Techniques for the study of Development

Anterior/Posterior , Dorsal ventral axis formation (1)

Gastrulation and early development (2 and 3)

Major Model Organisms- Mouse, Chick, Xenopus, C.elegans, Drosophila, Zebrafish

Programs and Regulatory Elements in DNA

Transcriptional circuits/epigenetic regulation of gene expression (4)

Receptors, Ligands-Signalling Networks (5)

Cell Division/Cell Death/ Differentiation (6)

Strategies for revision

- A) learn each topic (eg Transcription, gastrulation, Receptors and ligands, Signalling networks etc.
- BUT! Remember that these are not discrete entities- think about links between different parts of the course.

- Think also about examples from different model systems

- Eg if the topic is gastrulation
- We have discussed aspects of it in chick/ mammals/ drosophila

Think in broad terms about topics that span the course

- Morphogens Drosophila/ Vertebrate Neural Tube)
- Similarities/ deep conservation between pathways (DPP/ BMP)

- In your answers think about the possible inclusion of reference to specific experimental technology where appropriate, ie * if you are asked to describe an experiment that was done OR if you are asked to propose an experiment